FOREWORD

The U.S. Army Medical Research and Materiel Command (USAMRMC) has been directed by the Secretary of the Army to administer the Department of Defense (DOD) Ovarian Cancer Research Program (OCRP). The deadlines, format, and other criteria specified for proposals in this Broad Agency Announcement (BAA) are based on program objectives, public needs, and acquisition regulations.

Section I of this announcement summarizes the program focus, award categories, funding mechanisms, and funding levels. This information is based, in part, on the June 1997 recommendations of the OCRP Integration Panel.

Section II describes the USAMRMC process for scientific and programmatic evaluation and lists evaluation criteria for proposals solicited by this BAA.

Section III provides directions for proposal preparation.

Section IV of this announcement includes instructions for proposal submission (i.e., date, number of copies, where submitted) and general information on the USAMRMC's extramural research program and award administration.

Section V, the Appendices, is a summary of information, some of which must be included with the submitted proposal. All of the issues discussed in the Appendices 1-7 must be addressed before an award can be made.

The OCRP endeavors to ensure that all applicants' ideas are given fair consideration, and that the research that is ultimately funded best meets programmatic goals. Applicants should submit questions in writing as early as possible. However, one should carefully review this announcement before submitting a question. The resources cited in this BAA as well as those available within local institutions (e.g., the Business or Contracts Office) should be fully utilized.

No extensions can be granted to the proposal submission deadlines. Every effort will be made to answer questions within ten working days of receipt. Inquiries must be restricted to format issues only; no questions relating to technical proposal content or reasonableness/ allowableness of costs will be answered.

General information on the USAMRMC can be obtained on the World Wide Web at *http://mrmc-www.army.mil*. Specific information on the OCRP can be obtained at *http://mrmc-rad6.army.mil.* A copy of this BAA and associated forms (not including the proposal cover booklet) can be downloaded at *http://mrmc-rad6.army.mil/documents.html.*

Questions concerning the preparation of proposals, formats, or required documentation can be addressed to the USAMRMC at:

U.S. Army Medical Research and Materiel Command
ATTN: MCMR-PLF (OCRP-BAA-97)
524 Palacky Street
Fort Detrick, MD 21702-5024
Phone: (301)619-7079
Fax: (301)619-7792
E-mail: radvi_baa@ftdetrck-ccmail.army.mil

Proposal Submission Requirements:

Proposal: one original and thirty copies.
Proposal Cover Booklet: one original and two copies.
Technical Abstract Page: additional thirty copies in a manila envelope.

Proposal Submission Address:

Commander
U.S. Army Medical Research and Materiel Command
ATTN: MCMR-PLF (OCRP-BAA-97)
524 Palacky Street
Fort Detrick, MD 21702-5024

Proposal Deadline:

12 November 1997, 4:00 p.m. Eastern Standard Time

U.S. Army 1997 Ovarian Cancer Research Program
Proposal Acceptance Checklist

[ ] Remember to Fax the Proposal Cover Booklet Order Form (blue in color)

The following criteria must be followed. Failure to conform to any of these criteria may lead to rejection of the proposal.

[ ] Completed Proposal Cover Booklet (bubble sheet). You must submit an original booklet plus two copies.

- [ ] Signatures (Mandatory)
  - [ ] Principal Investigator
  - [ ] Institution Contracting Representative
  - [ ] Official of the Institution

[ ] Maximum Page Limits

[ ] Proposal Title Page	1 page
[ ] Table of Contents	3 pages
[ ] Proposal Abstract Pages	2 pages

[ ] Description of the Overall Effort (page limits apply for individual sections as indicated)

[ ] Proposal Relevance Statement	1 page
[ ] Theme and Goals	1 page
[ ] Key Personnel and Performance Sites	1 page
[ ] Research Management Plan	3 pages
[ ] Feasibility of the Proposed Prevention Strategy	5 pages
[ ] Budget Summary for the Overall Effort	1 page
[ ] References/Bibliography	no page limit
[ ] Biographical Sketch of the Principal Investigator	3 pages
[ ] Institutional Commitment	1 page

[ ] Description of the Individual Projects/Cores (provided separately for each project or core)

[ ] Title Page	1 page
[ ] Project Abstract Page	1 page
[ ] Research Plan	25 pages
[ ] Statement of Work	1 page
[ ] Detailed Cost Estimate (using form in Appendix 1)	no page limit
[ ] Addenda	
[ ] Addendum 1: Acronym and Symbol Definition	2 pages
[ ] Addendum 2: Illustrations/Diagrams/Chemical Syntheses	5 pages
[ ] Addendum 3: References/Bibliography	no page limit
[ ] Addendum 4: Personnel Biographical Sketches	3 pages/investigator
[ ] Addendum 5: Existing/Pending Support	no page limit
[ ] Addendum 6: Collaboration and Joint Sponsorship	no page limit
[ ] Addendum 7: Facilities/Equipment Description	no page limit
[ ] Addendum 8: Questionnaires/Clinical Protocols	no page limit
[ ] Addendum 9: Publications and Patent Abstracts	5 documents or less

[ ] Is every page single-spaced and single-sided? Double-sided pages may not be accepted (with the exception of article reprints).

[ ] Margins: Minimum of 0.5 inch top, bottom, right, and left

[ ] Paper Size: 8.5 inch x 11 inch

[ ] Type Font: 12 point

[ ] Submit the original proposal plus 30 copies.
- [ ] The original, including the addenda, must be collated and bound with a binder clip.
- [ ] Copies, including the addenda, must be collated and stapled. Do not use binder clips, rubber bands, or spiral/ring binders.

[ ] Submit 30 additional copies of the technical abstract page in a manila envelope.

[ ] Remember: The submission deadline is **12 November 1997 at 4:00 p.m. U.S. Eastern Standard Time**. You must allow time for the proposal to be delivered (see section IV-B.5 for delivery details). **As in the past, no exceptions will be made for late proposals**.

This checklist is for your use; it does not need to be submitted with the proposal.

TABLE OF CONTENTS

I. CATEGORIES OF AWARDS & FUNDING LEVELS

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I-A. Overview of the Program

The United States Army Medical Research and Materiel Command (USAMRMC), through this Broad Agency Announcement (BAA), is soliciting proposals for integrated multidisciplinary research efforts to develop novel ovarian cancer prevention strategies at National Cancer Institute-designated Comprehensive Cancer Centers (CCCs). The overall goal of this funding effort is to promote research directed toward preventing ovarian cancer. Within this context, the objectives of the USAMRMC Ovarian Cancer Research Program (OCRP) are: (1) to advance primary and secondary prevention through enhanced understanding of ovarian cancer development and progression, (2) to engage experts from multiple disciplines in genuinely collaborative efforts, and (3) to foster the development of a sustained national ovarian cancer research enterprise.

The USAMRMC encourages the scientific community to undertake innovative research to prevent ovarian cancer by calling for proposals that will foster new directions, address neglected issues, and build long-term ovarian cancer research capabilities through multi-investigator and multi-institutional networking. The central themes of the Program are innovation and collaboration. Scientific ventures that represent unattempted avenues of investigation or novel applications of existing technologies are strongly encouraged. In addition, the USAMRMC also encourages collaborations with minority institutions and proposals addressing the needs of minority, elderly, low-income, rural, and other under-represented populations.

As directed in the Congressional language for this appropriation, the programmatic strategy is being implemented by this call for proposals from CCCs. The awards are intended to fund genuine multidisciplinary collaborations to develop strategies to prevent epithelial ovarian cancer. The award mechanism and specific requirements are described in Section I-B, followed by a description of who may apply.

All proposals will be evaluated in a two-tiered review process consisting of scientific merit review (peer review) in the first tier and programmatic relevance review in the second tier. While scientific merit is an important requirement for award, proposals that receive high scientific merit scores in peer review but are judged to have low programmatic relevance are less likely to be selected for funding. Therefore, scientifically excellent studies that directly address the unique focus and goals of this program are most likely to receive funding support. The USAMRMC evaluation process and criteria for proposals solicited in this BAA are described in Section II.

I-B. Award Mechanism

Approximately $6 million will be available for awards. Individual awards will be for a maximum total of $2 million, inclusive of direct and indirect costs, over a maximum four-year period of performance.

Funding for the fiscal year (FY) 1997 OCRP will be used to develop novel ovarian cancer prevention strategies in CCCs. This effort focuses on epithelial ovarian cancer. The proposed work must demonstrate an innovative, integrated approach in which at least two different scientific disciplines are engaged in a genuine collaboration. Prevention strategies that address the needs of low-income and underserved populations are strongly encouraged. Proposed prevention strategies must incorporate a basic science component and should emphasize primary prevention, although secondary prevention is not excluded. For the purposes of the OCRP, primary prevention is defined as preventing the development of ovarian cancer, while secondary prevention is defined as detecting ovarian cancer at earlier, more curable stages.

The proposed work must incorporate at least two projects, integrated around a common theme relevant to prevention, from the following list of areas:

- diagnostic tools
- education (public and provider)
- ethics
- etiology
- epidemiology
- hormone replacement therapy
- menopause
- nutrition/exercise
- prevention trials
- prognostic factors
- psychosocial/behavioral research
- risk assessment
- risk correlates to other gynecologic cancers
- screening/outreach

While the USAMRMC acknowledges an extensive array of needs for ovarian cancer research, the FY 97 program focus, as directed by Congress, is prevention. Nonetheless, this funding effort is envisioned as the catalyst of a broader national ovarian cancer research enterprise. Consistent with this vision, collaborations among investigators from multiple institutions are encouraged to foster networking beyond the CCCs. These may include collaborations with academic and/or community institutions outside the CCC, as well as collaborations among multiple CCCs.

Further, efforts to develop sustained shared resources that facilitate future ovarian cancer research are also encouraged. In this regard, projects to develop core facilities that support the proposed prevention strategy are permitted. Funding for core facilities will be limited to new cores specifically focusing on ovarian cancer or the enhancement of existing cores that will add a new ovarian cancer component. If construction is proposed as part of the effort, 50 percent institutional matching funds are required. Construction and/or renovations are permitted only for facilities that are required to support the project and must be justified.

Only **one** proposal per CCC is allowed for the FY 97 program. As such, proposals for collaborations among multiple CCCs would represent the single submission allowed for each collaborating institution. Proposals must contain distinct descriptions of the overall prevention strategy theme and of each individual proposed project. Submissions should show evidence that the CCC intends to sustain the effort after OCRP funding expires. Specific proposal requirements are described in Section III.

Research may be conducted over a two-to-four-year period from the date of the award. Awards will be finalized by 30 September 1998.

I-C. Who May Apply

Eligible institutions are restricted to CCCs, as defined by the National Cancer Institute of the National Institutes of Health. This restriction does not exclude CCC **collaborations** with institutions that are not CCCs; however, every submission must originate from a CCC.

II. PROPOSAL EVALUATION

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The USAMRMC utilizes a two-tiered review system for proposal evaluation involving separate phases for scientific merit review and programmatic review. The two tiers of review are fundamentally different. Scientific merit review is a criterion-based process in which individual proposals are evaluated for scientific and technical merit without regard to other proposals under consideration. In contrast, programmatic review is a comparison-based process in which proposals from multiple disciplines compete in a common pool. The evaluation of programmatic relevance during programmatic review involves direct comparisons of proposals that are judged to have high scientific merit in peer review. In order for a proposal to be funded, it must be recommended by both levels of the two-tiered review system.

II-A. Scientific Review Panels

Composition and responsibilities: The first level of review will be conducted by a multidisciplinary scientific peer review panel. The primary responsibility of the scientific peer review panel is to provide unbiased, expert advice to the USAMRMC on the scientific and technical merit of applications with respect to the review criteria articulated in the BAA. Given the expected complexity and multidisciplinary nature of proposals for this program, a multidisciplinary review panel will be constituted, as opposed to discipline-specific panels. The scientific review panel will include an executive secretary as a non-voting member, a chairperson, scientific reviewers across the full range of disciplines relevant to ovarian cancer, and two ovarian cancer consumer advocates as voting members. The scientific reviewers are recognized leaders in their fields and are chosen on the basis of relevant scientific expertise. Selection of the executive secretary and scientific reviewers is predicated upon their individual experience in scientific peer review. A list of all scientific panel members will be released after all awards are negotiated. However, to ensure the confidentiality of the review process, information regarding specific proposal assignments will not be released.

Consumer advocate panel members: Beginning with the FY 95 Breast Cancer Research Program, the USAMRMC has included survivors as consumer advocates in its science management activities to ensure the inclusion of their unique perspectives. Consumer advocates augment scientific merit review by broadening the perspective brought to the assessment of science. The FY 97 OCRP peer review will include consumers, defined as the prime beneficiaries of ovarian cancer prevention. Accordingly, consumer representatives may include survivors of the disease or women with a family history of ovarian cancer who have not been diagnosed with the disease.

Evaluation: Panel members will rate each proposal based on the specific evaluation criteria listed in Section II-C. Proposals will initially be assessed to determine whether the proposed work has substantial merit to warrant full review. All proposals that are determined to have insufficient scientific merit will be rejected without further review.

For proposals judged to have substantial merit, the scientific merit review process will involve two phases. First, each component project/core will be evaluated. Reviewers will rate the merit of each project using adjectival descriptors according to the scale that follows. Reviewers will have the discretion to reject individual projects/cores that are deemed to have insufficient merit for further consideration. Second, after all component projects and cores have been evaluated, reviewers will evaluate the overall effort. Rejected projects/cores will not be considered in the evaluation of the overall effort, but may nonetheless influence the rating of the overall effort inasmuch as the inclusion of poor quality projects represents a deficiency of judgment on the part of the Principal Investigator (PI).

Scoring Scale	
Outstanding	1.0-1.5
Excellent	1.5-2.0
Very Good	2.0-2.5
Good	2.5-3.5
Acceptable	3.5-5.0

Each evaluation criterion for the overall effort, with the exception of budget, will be rated on a scale of 1 (low merit) to 10 (high merit). Criteria scoring ensures that each component criterion is considered in the review. The criteria scores will not be averaged or manipulated to determine a priority score; instead, reviewers will use the criteria scores as a guide in determining a priority score. Once the overall effort has been reviewed, each reviewer will determine a priority score for the entire application using the scale listed above. The final priority score of the application will be the average of the individual reviewer scores.

II-B. The Integration Panel and Programmatic Review

Composition and responsibilities: Programmatic review will be conducted by an Integration Panel (IP). At the outset of the FY 93 Breast Cancer Research Program, the USAMRMC consulted the National Academy of Science's Institute of Medicine (IOM) for recommendations

on program investment and management strategies. In a report entitled *Strategies for Managing the Breast Cancer Research Program: A Report to the U.S. Army Medical Research and Development Command*, the IOM committee made the following recommendation regarding the panel:

> The committee recommends that the Army Medical R & D Command, as one of its first steps, appoint a council of 16 to 18 individuals that will advise the managers of the research program. The council's membership should represent multiple disciplines, including clinical, basic, and public health sciences, and also different geographic regions of the country; individuals should come from practice settings as well as academia and other research settings. The council should include qualified individuals at different career levels; most members should be experienced in biomedical review. Although the program will be housed in the Defense Department, the committee recommends that council members be primarily nonmilitary. Three or four members of the Advisory Council should represent consumer or public interests...The major tasks of the Advisory Council are to review the recommendations of the study sections, to make recommendations upon the final distribution of funds...

The Integration Panel for the 1997 OCRP adheres to this guidance. The IP consists of 18 members representing a diverse group of basic and clinical scientists and consumers. Unlike the National Cancer Institute's Advisory Board which is concerned with multiple cancer types, the IP membership focuses exclusively on ovarian cancer. The scientific members represent many diverse disciplines and specialty areas and are experienced with peer review procedures. In selecting proposals to be recommended for funding, the IP will not only base decisions on scientific and technical merit, but will also consider such factors as the degree of innovative science, the relevance to the ultimate eradication of ovarian cancer, and the potential for scientific breakthroughs. It is the responsibility of the IP to recommend a balanced portfolio of highly meritorious science that meets the programmatic objectives of innovation and scientific diversity.

Consumer advocate panel members: Consumer advocates will participate in all phases of the Integration Panel deliberations. With their first-hand experience, the consumer advocates enhance the review process by focusing attention upon critical patient issues and outcomes. Consumer advocates have been instrumental in raising public awareness and interest in supporting ovarian cancer research.

Evaluation: The IP reviews the results of the scientific review panel's deliberations and makes recommendations on the final distribution of funds by matching scientific excellence with the programmatic objectives.

II-C. Scientific Peer Review Evaluation Criteria for Awards

Each proposed **project** will be evaluated according to the criteria listed below:

a. Originality and innovative nature of the proposed project

b. Hypothesis, rationale, and research strategy (preliminary data not required but may be included)

c. Scientific relevance (defined as the likelihood to generate new understanding to advance ovarian cancer prevention)

d. Qualifications of the Project Director and staff for the individual project

e. Adequacy of resources and environment to support the project

f. Reasonableness of the budget

Each proposed **core** will be evaluated according to the following criteria:

a. Utility of the proposed core to the overall project; core should provide essential facilities or service for at least two projects judged to have scientific merit

b. Quality of the facilities or services provided by the core and criteria for prioritization of usage

c. Qualifications, experience, and commitment of the personnel involved in the core

d. Reasonableness of the budget

In addition, the **overall proposal**, excluding those projects rejected as having insufficient merit, will be evaluated according to the criteria listed below:

a. Scientific relevance of the proposed prevention strategy (defined as the likelihood to generate new understanding to advance ovarian cancer prevention)

b. Integration of individual project goals to the overall prevention strategy theme

c. Adequacy of research management plan to integrate individual projects into a cohesive overall effort

d. Extent of multidisciplinary collaboration

e. Leadership and scientific ability of the Principal Investigator responsible for direction and oversight of the overall effort

f. Institutional commitment to the requirements for executing the proposed effort and to sustain the long-term goals of the effort

II-D. Programmatic Review Process Description

Programmatic review is a comparison-based process in which proposals from multiple research areas compete in a common pool. Programmatic relevance is an assessment that balances the risks and potential outcomes of scientifically excellent proposals to best fulfill the OCRP goals and objectives. The IP does not automatically recommend funding for all highly scored proposals reviewed by the scientific peer review panel, nor does it re-review the scientific and technical merit. Instead, it carefully scrutinizes each proposal in an attempt to allocate, as wisely as possible, the funds available. More specifically, the factors the IP uses to make funding recommendations are:

a. Ratings and recommendations of the peer review panel
b. Programmatic relevance
c. Scientific innovation
d. Portfolio balance with respect to research focus
e. Appropriate gender, minority, and geographic distribution
f. Research targeting minority populations

While final program authority rests with the Commanding General of the USAMRMC, due consideration will be given to the recommendations provided by the IP.

II-E. Award Notification

Following completion of the two-tiered evaluation process, all principal investigators who submit compliant proposals will receive a letter indicating their funding status, along with a scientific review summary critique of their proposal. Scientific review summaries will contain the proposal global score and the evaluation criteria scores, along with detailed comments that provide a summary review and address the proposal's strengths and weaknesses with respect to each evaluation criterion. It is expected that this information will be distributed in May 1998. All award negotiations will be completed by 30 September 1998.

III. PROPOSAL PREPARATION

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III-A. General Information

III-A.1. Proposal Requirements

Proposals submitted in response to this BAA must conform to the order, length, and format prescribed in this section. Proposals that exceed the page limitations, do not include an original Proposal Cover Booklet, and/or do not contain the prescribed contents and signatures MAY NOT RECEIVE FURTHER CONSIDERATION. Proposals that are received late WILL NOT RECEIVE FURTHER CONSIDERATION.

Proposals shall contain seven principal parts:

1. Proposal cover booklet (bubble sheet)
2. Title page
3. Table of contents
4. Proposal abstract pages
5. Description of the overall effort
6. Description of the individual projects
7. Appendices (to be submitted upon request)

Length requirements for these parts are indicated in the Proposal Contents section (see Section III-A.2).

With the exception of the proposal cover booklet, publications, patent abstracts, and questionnaires/clinical protocols, **all components** of the proposal (to include figure legends, cost estimates, biographical sketches, etc.) must:

1. be single-spaced,
2. be submitted on single-sided 8.5" x 11" pages,
3. have margins no less than 0.5 inches,
4. use font no smaller than 12 point, and
5. be written in English.

The following paragraph provides an example of the minimum font size, margins, and line spacing:

This demonstrates the minimum font size, margins, and line spacing. This demonstrates the minimum font size, margins, and line spacing. This demonstrates the minimum font size, margins, and line spacing. This demonstrates the minimum font size, margins, and line spacing. This demonstrates the minimum font size, margins, and line spacing. This demonstrates the minimum font size, margins, and line spacing. This demonstrates the minimum font size, margins, and line spacing.

Use the Proposal Acceptance Checklist (pages iii-iv) to verify that **all** proposal acceptance criteria have been met, but do not submit this checklist with the proposal.

An original plus 30 collated copies of the proposal are required. The proposal original should be marked "Original" in the upper right corner. The original copy should not be stapled but should be bound with binder clips.

Inclusion of Women and Minorities in Clinical Studies: Women and minorities must be included in all *appropriate* USAMRMC-supported biomedical and behavioral research projects involving human subjects, unless a clear and compelling justification establishes that inclusion is inappropriate with respect to the health of the subjects or the purpose of the research. This information should be included in human use documentation, as described in Appendix 5. Please note, however, that the human use documentation is not to be submitted with the proposal, but must be immediately available upon USAMRMC request (on or about 1 February 1998).

Ordering Proposal Cover Booklets: To receive a proposal cover booklet (bubble sheet), **fill out the Blue Order Form for Proposal Cover Booklet and fax it to (301)682-5521**. On the form, include a brief description of the proposed research. Once this form is received, you will be sent two original Proposal Cover Booklets. Proposals will not be accepted without an original and two copies of the Proposal Cover Booklet. *Note: If you do not receive your booklets within ten working days of request, re-order by calling (301)682-5501.*

III-A.2. Proposal Contents

The following seven parts are required and should be included in the following order:

1. **Proposal Cover Booklet**

   Two original booklets will be mailed upon receipt of the letter of intent as described above. See Section III-B.1 for specific instructions on completing the Proposal Cover Booklet.

2. **Proposal Title Page** (1 page only, see Section III-B.2 for instructions)

3. **Table of Contents** (up to 3 pages, see Section III-B.3 for instructions)

4. **Proposal Abstracts** (2 pages, see Section III-B.4 for instructions)

5. **Description of the Overall Effort** (page limits apply as indicated, see Section III-B.5 for instructions)

A.	Proposal Relevance Statement	1 page only
B.	Theme and Goals	1 page only
C.	Key Personnel and Performance Sites	1 page only

D.	Research Management Plan	no more than 3 pages
E.	Feasibility of the Proposed Prevention Strategy	no more than 5 pages
F.	Budget Summary for the Overall Effort	1 page only
G.	References/Bibliography	no page limit
H.	Biographical Sketch of the Principal Investigator	no more than 3 pages
I.	Institutional Commitment	1 page only

6. **Description of the Individual Projects** (page limits apply as indicated, see Section III-B.6. for instructions)

The following information is to be provided separately for each proposed project and core facility:

A. Title Page — 1 page only

B. Project Abstract Page — 1 page only

C. Research Plan — no more than 25 pages
1. Background
2. Hypothesis/Purpose
3. Technical Objectives
4. Methods
5. Project Relevance
6. Additional Requirement for Proposed Core Facilities

D. Statement of Work — 1 page only

E. Detailed Cost Estimate — use budget form, see III-B.6.e.
1. Personnel Costs
    a. Role on Project
    b. Type of Appointment/Months
    c. Percent of Effort on Project
    d. Salary Requested
    e. Fringe Benefits
    f. Totals
2. Consultant Costs
3. Major Equipment
4. Materials, Supplies, and Consumables
5. Travel Costs
6. Research-Related Patient Costs
7. Other Expenses

8. Consortium Costs
9. Indirect Costs (overhead, general and administrative, and other)
10. Budget for Entire Proposed Period of Support (Second Budget Page)

F. Addenda.

Include only the following items:

1. Acronym and Symbol Definition	no more than 2 pages
2. Illustrations/Diagrams/Chemical Syntheses	no more than 5 pages
3. References/Bibliography	no page limit
4. Personnel Biographical Sketches	3 pages per investigator
5. Existing/Pending Support	no page limit
6. Collaboration and Joint Sponsorship	no page limit
7. Facilities/Equipment Description	no page limit
8. Questionnaires/Clinical Protocols	no page limit
9. Publications and Patent Abstracts	no more than 5 documents

7. Appendices (no page limit)

The following appendices must be prepared where appropriate. They are NOT to be included with the initial submission but must be immediately available upon USAMRMC request on or about 1 February 1998. **Failure to respond may result in an award not being made.** A complete proposal title page (see Section III-B.2 for instructions) must accompany these appendices.

A. Regulatory Compliance Checklist/Form (use form in Appendix 3 of this BAA)
B. Certificate of Environmental Compliance (use form in Appendix 4 of this BAA)
C. Research Involving Human Subjects and/or Human Anatomical Substances (see Appendix 5 of this BAA)
D. Research Involving Animals (see Appendix 6 of this BAA)
E. Safety Program Plan (see Appendix 7 of this BAA)

III-B. Specific Instructions

III-B.1. Proposal Cover Booklet (bubble sheet)

You must submit an original and two copies of the Proposal Cover Booklet. Two booklets will be forwarded to all investigators who fax in a Blue Order Form for Proposal Cover Booklet. The Proposal Cover Booklet must be filled out carefully and completely to ensure that each proposal is assigned to the appropriate review panel. In the event that additional booklets are needed, investigators may request these by:

Fax: (301)682-5521
Phone: (301)682-5501
E-mail: radvi_baa@ftdetrck-ccmail.army.mil
Mail: Commander, U.S. Army Medical Research and Materiel Command
ATTN: MCMR-PLF (OCRP-BAA-97)
524 Palacky Street
Fort Detrick, MD 21702-5024

Allow sufficient time for delivery by regular mail.

ATTENTION: **In order to facilitate the processing of the proposal, it is extremely important that you *read and follow the instructions completely* as you are filling out the Proposal Cover Booklet. Take special care to ensure that the written and bubbled figures match exactly.**

Below are the specific instructions for completing the **Proposal Cover Booklet**.

1. **Proposal Log Number.** (Official Use Only). Leave blank.

2. **BAA Identifier.** Fill out with **"OCRP-97."**

3. **Organization Code.** (Official Use Only). Leave blank.

4. **Organization Name and Address.** Indicate the name and address of the organization that is submitting the proposal on the PI's behalf. This is the address for the **Contracting/Business Office** of the PI's organization. It is the address for the administrative official indicated in Question 36 who is authorized to conduct negotiations on the applicant's behalf.

5. **Type of Organization.** Choose one primary type and all applicable subtypes within that primary subtype from the list provided in the Proposal Cover Booklet.

6. **Principal Investigator Last Name, First Name, and Middle Initial.** The PI is the individual who is primarily responsible for the overall proposed effort.

7. **Title.** Indicate the appropriate title for the PI.

8. **Rank.** Federal employees must fill out their rank completely. If the PI is not a Federal employee, leave this blank.

9-15. **Principal Investigator's Mailing Address.** Fill out the PI's correct mailing address. This is the address where the work will be performed. **Do not use the PI's home address.** If applicable, state the PI's organization and department, then street address. Do not use abbreviations or acronyms of any kind in the address. Do not use formal terms

such as “The” or “The Trustees of” when indicating the organization. Where no organization or department name is necessary, fill out the applicant’s street address only. If possible, avoid the use of PO Boxes.

16-17. **Principal Investigator’s Phone and Fax numbers.** U.S. and Canadian phone numbers must be filled in completely.

18. **Principal Investigator’s E-mail Address.** If the PI has access to e-mail, write the address in the space provided.

19. **Demographics.** (Optional). Indicate the PI’s gender and ethnicity, if desired.

20. **Degree.** Indicate all that apply.

21. **Proposal Title.** Enter the title of the proposal. This may be up to 160 characters long. Capitalize the initial word and the first letter of each subsequent word, with the exception of prepositions and articles. Please note that each blank space is equivalent to one character.

22. **Total Funding Requested.** Fill in the total dollar amount requested. This is the total dollar amount for all direct and indirect costs for the entire period of the research as indicated in the Budget Summary section of the Description of the Overall Effort (Section III-B.5.f). Enter amounts in whole U.S. dollar figures only. Please be sure to right justify the amount; any blank spaces should be to the left of the amount.

23. **Military/Civilian Collaboration.** Indicate whether the proposal DOES or DOES NOT involve a military/civilian collaboration. If the proposal DOES represent a military/civilian collaboration, fill in the full name and address of the collaborating organization. Note that the lead partner is the non-DOD organization. Therefore, the military organization should be listed here as the collaborating organization.

24. **Human Subjects and Anatomical Specimens.** (Official Use Only). Leave blank.

25. **Number of Human Subjects.** (Official Use Only). Leave blank.

26. **Animal Subjects.** (Official Use Only). Leave blank.

27. **Number of Animal Subjects.** (Official Use Only). Leave blank.

28. **Safety Provisions.** (Official Use Only). Leave blank.

29. **Proposal Category.** (Official Use Only). Leave Blank.

30. **Mentor Name.** (Official Use Only). Leave Blank.

31. **Research Classification.** (Official Use Only). Leave blank.

32. **Primary Research Area.** (Official Use Only). Leave blank.

33. **Secondary Research Area 1.** (Official Use Only). Leave blank.

34. **Secondary Research Area 2.** ***If the proposed research involves human subjects, answer question 34.*** Does the proposed research target one or more of the following minority populations: African American, Asian, Hispanic/Latino, Native American, or Pacific Islander?

    Please use the following codes to answer this question:
    If the proposed effort **does** target minority populations, use code **100.**
    If the proposed effort **does not** target minority populations, use code **200.**

35. **Secondary Research Area 3.** ***If the proposed research involves human subjects, answer question 35.*** Specifically, does the project have a **planned outreach effort** to recruit and retain minority populations in the study? The goal is to develop appropriate lines of communication and to build mutual trust so that both the study and minority communities benefit from the collaboration.

    Please use the following codes to answer this question:
    If the proposed effort **has** such a plan, use code **100.**
    If the proposed effort **does not have** such a plan, use code **200.**

36. **Administrative Representative Authorized to Conduct Negotiations.** Indicate the primary and secondary administrative contacts authorized to conduct negotiations on the investigator's behalf. The address for the primary contact must be indicated in question 4 on the first page of the Proposal Cover Booklet. If the organization has a Contracting/Business Official, this is the authorized individual contacted to negotiate potential awards. The signature of the institutional representative certifies that the offeror (sponsoring institution) has examined the investigator's credentials and verifies that the investigator is qualified to conduct the proposed study and to use humans and/or animals as research subjects (if appropriate). **THIS SIGNATURE IS MANDATORY.**

37. **Official of the Institution.** In cases where the individual in question 36 is not officially authorized to offer the proposal, this signature is mandatory. Please obtain the appropriate certifying signature in this block.

38. **Principal Investigator.** The PI must sign in the space indicated. **THIS SIGNATURE IS MANDATORY.**

Check this cover booklet carefully for mistakes before sending it with the proposal. Mistakes in this booklet may result in misassignment of the proposal to an inappropriate scientific merit review panel or rejection of your submission. If you have any questions about the OCRP, the BAA, or the Proposal Cover Booklet, please e-mail: radvi_baa@ftdetrck-ccmail.army.mil, or call: (301)619-7079.

III-B.2. Proposal Title Page - 1 page only (font and margin requirements apply)

A Proposal Title Page must accompany every proposal submission and must include the following information:

1. Principal Investigator's Full Name, including middle initial
2. Proposal Title
3. Organization Name and Location to include city, state, and country (if non-U.S.)
4. Principal Investigator's Phone and Fax Numbers
5. Contracting Representative's Name
6. Contracting Representative's Phone and Fax Numbers

III-B.3. Table of Contents - up to 3 pages (font and margin requirements apply)

Prepare a Table of Contents, with page numbers, following the outline presented in Section III-A.2 entitled "Proposal Contents." Each category of information specified in Section III-A.2 should be included. Number each page consecutively at the bottom, beginning with the Proposal Title Page, throughout the entire application.

III-B.4. Proposal Abstract Pages - 2 pages (font and margin requirements apply)

Two abstracts are required: One technical abstract and one lay abstract. The lay abstract facilitates the USAMRMC goal of information dissemination to the lay community. Each abstract must not exceed one page in length.

In addition to the abstract pages contained within the proposal, submit 30 additional copies of the technical abstract in a manila envelope. An abstract of the proposed research, not to exceed one page, must precede the body of the proposal. Note that abstracts of all funded proposals will be reproduced in an OCRP abstract book and posted on the Internet. Abstract pages shall contain the following items:

1. Title of the Proposal
2. PI Name
3. Up to Five Key Words Relevant to the Proposal
4. Abstracts (Technical and Lay)

III-B.5. Description of the Overall Effort (page limits apply as indicated below; font and margin requirements apply)

This section provides an overview of the integrated effort and identifies the proposed prevention strategy. The theme of the proposed effort, the integration of the individual projects, the plan for coordinating the overall effort, and the quality and multidisciplinary nature of the collaborations are key considerations in proposal evaluation and should be clearly articulated. A compelling case should be made with respect to the effort's potential impact on ovarian cancer prevention and its likelihood for successful implementation.

III-B.5.a. Proposal Relevance Statement - 1 page only (font and margin requirements apply)

In no more than one page, describe how the overall integrated effort will have substantial impact on ovarian cancer prevention, making reference to the component contributions of the individual projects.

III-B.5.b. Theme and Goals - 1 page only (font and margin requirements apply)

Describe the goals of the overall effort, indicating how the proposed work will contribute to the development of a comprehensive ovarian cancer prevention strategy. Establish the theme of the prevention strategy, identify the individual proposed projects, and delineate how each individual project is integrated under the theme and contributes to the development of the comprehensive ovarian cancer prevention strategy.

III-B.5.c. Key Personnel and Performance Sites - 1 page only (font and margin requirements apply)

Provide a listing of the key personnel and their performance sites to include:

1. The Principal Investigator of the overall effort
2. The Project Director and key staff of each proposed project. (The term Principal Investigator is reserved for the person responsible for the direction and oversight of the overall effort.)
3. The core facility leader's name for each core to be developed or enhanced in the effort

Given the integrated and collaborative nature of the solicited efforts, several key staff members may be involved in more than one project. List, in tabular form, the distribution of key personnel on each project. Detailed Biographical Sketches of personnel are not required in this section because they are included elsewhere.

III-B.5.d. Research Management Plan - up to 3 pages (font and margin requirements apply)

Explain how the ovarian cancer prevention strategy will be developed/implemented by a coordinated administration of the individual projects. This should include a description of how the activities of the multiple projects, the expertise of multiple disciplines, and resources of new or enhanced core facilities will be synthesized to fulfill the goals of the overall effort. Details of the collaboration of key personnel, interactions among collaborating institutions (if any), data sharing strategies, and oversight mechanisms should be described. Identify milestones or outcomes from individual projects that will be used to support activities of other projects. Provide convincing evidence that the proposed coordinated effort offers distinct advantages over executing the projects independently.

III-B.5.e. Feasibility of the Proposed Prevention Strategy - up to 5 pages (font and margin requirements apply)

Provide arguments and evidence to indicate the rationale for the proposed prevention strategy and to demonstrate the likelihood for successful implementation of the strategy. This may include findings from other areas of research, analogies to successful approaches in other fields, preliminary results of the participating investigators, and/or preliminary results of other investigators. Information indicating ongoing or previous successful collaborations among the participating investigators and/or institutions may also be included.

III-B.5.f. Budget Summary for the Overall Effort - 1 page only (font and margin requirements apply)

Provide a synopsis of the overall effort's budget. Budget details (e.g., itemized costs) for individual projects/cores are provided elsewhere and are not required here. List the total requested costs for each project and core (inclusive of direct and indirect costs), and provide the sum of the individual projects/cores and the total requested budget for the overall effort.

III-B.5.g. References/Bibliography - no page limit (font and margin requirements apply)

Provide a list of literature cited in the Description of the Overall Effort only.

III-B.5.h. Biographical Sketch of the Principal Investigator - up to 3 pages (font and margin requirements apply)

Provide a biographical sketch for the PI responsible for direction and oversight of the overall effort using the form "Biographical Sketches" provided as Appendix 2. The biographical sketch must not exceed three pages. A list of significant publications should be incorporated into the biographical sketch. Curricula vitae that exceed this limit must not be included.

The qualifications of the PI and the amount of time that he/she will devote to the overall effort are important factors affecting the selection of proposals. Contracts, grants, cooperative agreements, and interagency agreements may be terminated when the PI severs connections with the organization or is unable to continue active participation in the research.

III-B.5.i. Institutional Commitment - 1 page only (font and margin requirements apply)

A key objective of this funding effort is to foster a sustained national ovarian cancer research enterprise. Accordingly, an indication of the institutional commitment to sustaining the long-term goals of the effort is required. Describe strategies to be used for continued development of the prevention strategy, to pursue additional funding for outcomes of the effort, and/or to sustain the staffing and maintenance of new core facilities when the funding period ends.

III-B.6. Description of the Individual Projects/Cores (page limits, as indicated below, and font and margin requirements apply)

The following information must be provided separately for each proposed project and core facility.

III-B.6.a. Title Page - 1 page only (font and margin requirements apply)

Indicate the project number and title in large boldface type and list the names and affiliations of the Project Director or Core Facility Director and key support staff.

III-B.6.b. Project Abstract Page - 1 page only (font and margin requirements apply)

An abstract of the proposed project, not to exceed one page, must be included. For individual projects, only technical abstracts are required (recall that the overall proposal abstract pages require a technical and a lay abstract). Abstracts shall contain the following items:

1. Title of the Proposal
2. PI Name
3. Up to Five Key Words Relevant to the Proposal
4. Abstract (Technical only)

III-B.6.c. Research Plan - up to 25 pages total (font and margin requirements apply)

Provide a detailed description of the research to be undertaken following the outline listed below:

Background: Provide a brief statement of the ideas and reasoning behind the proposed project. A convincing rationale for the proposed work and any preliminary data to support the project's feasibility should be included.

Hypothesis/Purpose: State the hypothesis to be tested and the expected results.

Technical Objectives: State concisely the specific aims of the project.

Methods: Give details about the experimental design and methodology. If the methodology is new or unusual, describe it in sufficient detail for evaluation. **Use of Addenda to continue providing specific written details of the experimental design or methodology may result in rejection of the proposal.**

Project Relevance: Describe how the project is relevant to the proposed ovarian cancer prevention strategy. Indicate how the successful completion of the project will advance ovarian cancer prevention. For proposed core facilities, describe how the resources provided are vital to the completion of the overall work and will impact future research efforts in ovarian cancer. Additionally, for proposed enhancements to existing core facilities, indicate how the enhancements will add specific ovarian cancer research capabilities.

Additional Requirement for Proposed Core Facilities: Describe the services to be provided by the proposed core facility, the associated administrative structure, and anticipated usage.

III-B.6.d. Statement of Work - 1 page only (font and margin requirements apply)

The Statement of Work is a concise restatement of the project that outlines and establishes the Project Director's performance expectations for which the USAMRMC will provide support. While some allowance is made for encountering problems and uncertainties that are a part of research, the Project Director is expected to meet the provisions and milestones of the Statement of Work.

Every project submitted in response to this BAA must contain a Statement of Work, in outline form, prepared by the proposer. A series of relatively short statements should be included that comprise the stepwise approach to each of the major goals or objectives of the proposed research. As appropriate, the Statement of Work should:

- describe work to be accomplished as specific tasks.
- identify the timeline and milestones for the work over the period of the proposed effort.

- indicate the numbers of research subjects (animal or human) for each task.
- identify methods. (Do not describe in detail.)
- identify products/deliverables for each phase of the project.

As a guide, the Statement of Work for a three-year effort should require approximately one page of single-spaced typing. Several sample Statements of Work are included as Appendix 8 of this BAA.

III-B.6.e. Detailed Cost Estimate - use form in Appendix 1 (font and margin requirements apply)

The USAMRMC has introduced a standard budget form to assist in the preparation of detailed cost estimates and to facilitate the review of budgets during proposal evaluation. This form, included as Appendix 1 of this BAA, is the only form that should be used for preparing cost estimates. **Please be advised that submissions containing budget forms other than the USAMRMC standard form may not receive further consideration.**

Each item in the budget must be clearly justified on the *Justification* page (page 3 of the budget form). Further, itemize all budget categories for additional years of support on the *Justification* page. All amounts must be in U.S. dollars. For projects with a substantial foreign component, explain and justify this on the *Justification* page.

An estimate of the total individual project cost, with a breakdown of direct and indirect costs by category and year, must accompany each project description. Costs for multiple-year projects should cover the total estimated duration of the project. Costs proposed must conform with the following regulations and principles:

- Commercial Firms: Federal Acquisition Regulations (FAR) Part 31 and Defense FAR Supplement Part 31, Contract Cost Principles and Procedures.

- Educational Institutions: OMB Circular A-21, Cost Principles for Educational Institutions.

- Nonprofit Organizations: OMB Circular A-122, Cost Principles for Nonprofit Organizations.

- OMB Circular A-110, Uniform Administrative Requirements for Grants and Agreements With Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations.

- OMB Circular A-133, Audits of Institutions of Higher Education and Other Nonprofit Organizations.

The cost of preparing proposals in response to this BAA is not considered an allowable direct charge to any resultant grant or contract. It is, however, an allowable expense to the bid as a proposal indirect cost specified in FAR 31.205-18 and OMB Circulars A-21 and A-122.

It is the policy of the DOD that awards are made to institutions and that should a PI move during the period of funding, transfer of funding is not assured. Sub-awards by the original recipient institution may be considered.

Personnel Costs

Show projected salary amounts in terms of annual salary and percent effort on the project to be charged by the Principal Investigator, Project Director(s), research associates, and assistants, and the total amount per year to be paid to each staff member of the project. Starting with the Principal Investigator, list the names of all employees of the applicant who are involved in the project during the initial budget period, regardless of whether salaries are requested. Include all collaborating investigators, individuals in training, and support staff.

Role on Project: Identify the role of each individual listed on the project. Describe their specific functions on the *Justification* page (page 3 of the budget form).

Type of Appointment/Months: List the number of months per year reflected in an individual's contractual appointment to the offering organization. **DOD staff assume that appointments at the applicant organization are full time for each individual.** If an appointment is less than full time, e.g., 50 percent time, identify this with an asterisk (*) and provide a full explanation on the *Justification* page (page 3 of the budget form). Individuals may have split appointments, e.g., for an academic period and a summer period. For each appointment, identify and enter the number of months on separate lines.

Annual Base Salary: Enter the annual institutional base salary for each individual listed for the project.

Percent of Effort on Project: For each key staff member identified on the budget form, list the percent of each appointment to be spent on this project.

Salary Requested: Enter the dollar amounts for each position for which funds are requested. The salary requested is calculated by multiplying the individual's institutional base salary by the percent of effort on the project.

Fringe Benefits: Fringe benefits may be requested in accordance with institutional guidelines for each position, provided the costs are treated consistently by the applicant organization as a direct cost to all sponsors.

Totals: Calculate the totals for each position and enter these as subtotals in the columns indicated.

Consultant Costs

Whether costs are/are not involved, provide the names and organizational affiliations of all consultants, other than those involved in consortium arrangements.

Major Equipment

It is the policy of the Department of Defense that all commercial and nonprofit recipients provide the equipment needed to support proposed research. In those rare cases where specific additional equipment is approved for commercial and nonprofit organizations, such approved cost elements shall be negotiated separately.

Materials, Supplies, and Consumables

A general description and total estimated cost of expendable equipment and supplies are required. Itemize supplies in separate categories, such as glassware, chemicals, radioisotopes, etc. Categories in amounts less than $1,000 do not have to be itemized. If animals are to be purchased, state the species and the number to be used.

Travel Costs

List the number of trips, destinations, and purposes for all proposed travel. Estimate round-trip fare and per diem costs for each trip. Travel to scientific meetings requires identification of the meeting and purpose. No more than one trip to a scientific meeting per project per year is funded. Itemize travel requests and justify them on the *Justification* page (page 3 of the budget form).

Research-Related Patient Costs

Itemize costs of patient participation, if applicable, in the project. These costs are strictly limited to expenses specifically associated with the proposed study. The USAMRMC will not provide funds for ongoing medical care costs that are not related to a subject's participation in the research study.

Other Expenses

Itemize other anticipated direct costs such as publication and report costs, rental for computers and other equipment (giving hours and rates), communication costs, etc. Unusual or expensive items should be fully explained and justified. Estimate the costs of publishing and reporting research results, including direct charges for clerical preparation, illustrations, reprints, and distribution.

Consortium Costs

A description of services or materials that are to be awarded by subcontract or subgrant is required. For awards totaling $10,000 or more, provide the following specific information:

1. the identification of the type of award to be used (cost reimbursement, fixed price, etc.);

2. if known, the identification of the proposed subgrantee or subcontractor and an explanation of why and how the subgrantee or subcontractor was selected or will be selected;

3. whether the award will be competitive and, if noncompetitive, rationale to justify the absence of competition; and

4. the proposed acquisition price.

Indirect Costs (overhead, general and administrative, and other)

The most recent rates, dates of negotiation, base(s), and periods to which the rates apply must be disclosed and a statement included to identify whether the proposed rates are provisional or fixed. A copy of the negotiation memorandum should be provided. If negotiated forecast rates do not exist, sufficient detail must be provided to enable a determination that the costs included in the forecast rate are allocable. Disclosure should be sufficient to permit a full understanding of the content of the rate(s) and how it was established. As a minimum, the submission should identify:

1. all individual cost elements included in the forecast rate(s);

2. the basis used to prorate indirect expenses to cost pools, if any;

3. how the rate(s) was calculated; and

4. the distribution basis of the developed rate(s).

Budget for Entire Proposed Period of Support (second budget page)

Enter the totals under each budget category for all additional years of support requested and itemize these totals on the *Justification* page. Identify with an asterisk (*) and explain any significant increases or decreases from the initial year budget. Also, justify budgets with a higher than standard escalation from the initial to the future year(s) of support.

III-B.6.f. Addenda (font and margin requirements apply)

Include only items appropriate to the proposal. Note that page limitations apply as indicated. **Use of addenda to continue providing specific written details of the experimental design or methodology may result in rejection of the proposal.**

Acronym and Symbol Definition - up to 2 pages (font and margin requirements apply)

Provide a glossary of all acronyms and symbols.

Illustrations/Diagrams/Chemical Syntheses - up to 5 pages (font and margin requirements apply)

ONLY figures, tables, diagrams, and chemical syntheses *with minimal figure legends* may be included in this addendum. **Note that tables, legends, and captions must conform to font and margin requirements.**

References/Bibliography - no page limit (font and margin requirements apply)

List the references in the order they appear in the proposal narrative. Use a reference format that gives the title of the citation.

Personnel Biographical Sketches - 3 pages per investigator (font and margin requirements apply)

Biographical sketches should be prepared for each of the key personnel, other than the Principal Investigator (whose biographical sketch is included in the "Description of the Overall Effort"--see Section III-B.5.h), listed on the budget page for the initial budget period and must not exceed three pages per investigator. Use the form "Biographical Sketches" provided as Appendix 2 of this BAA. A list of significant publications should be incorporated into the biographical sketches. Curricula vitae that exceed this limit must not be included.

The qualifications of the Project Director and the amount of time that he/she and other senior professional key personnel will devote to the research are important factors affecting the selection of research proposals. Contracts, grants, cooperative agreements, and interagency acquisitions may be terminated when the PI severs connections with the organization or is unable to continue active participation in the research.

Existing/Pending Support - no page limit (font and margin requirements apply)

List on a separate page, the titles, time commitments, supporting agencies, durations, and levels of funding for all existing and pending research projects involving the PI and key personnel. Where

the projects overlap or parallel the current proposal, provide justification for the USAMRMC's interest and support.

Collaboration and Joint Sponsorship - no page limit (font and margin requirements apply)

Provide letter(s) from proposed collaborating individuals and institutes confirming collaborative efforts that are necessary for the project's success. Describe present or prospective joint sponsorship of any portion of the project outlined in the proposal. In the absence of agreements among sponsors for joint support, the proposal should be structured so that the research can be carried out without the resources of any other sponsor. If, however, it is desirable to request partial support from another agency, the proposed plan should be stated and the reasons documented. If the plan cannot be formulated at the time the proposal is submitted, information should be sent at the time that the appendices are requested (on or about 1 February 1998).

Prior approval of both agencies must be secured for research to be undertaken under joint sponsorship.

Facilities/Equipment Description - no page limit (font and margin requirements apply)

Describe the facilities available for performance of the proposed research and any additional facilities or equipment proposed for acquisition at no cost to the USAMRMC. Indicate if Government-owned facilities or equipment are proposed for use.

Questionnaires/Clinical Protocols - no page limit (NO font or margin requirements apply)

Attach questionnaires, survey instruments, or clinical protocols as they apply to the proposal.

Publications and Patent Abstracts - no more than 5 documents (NO font or margin requirements apply)

You may include relevant publication reprints and patent abstracts, up to a total of five documents.

III-B.7. Appendices

The appendices for Regulatory Compliance, Environmental Compliance, Human Use, Animal Use, and Safety Plan must be prepared where appropriate. They are NOT to be included with the initial submission but **must be immediately available upon USAMRMC's request on or about 1 February 1998. Failure to respond may result in an award not being made.**

A completed proposal title page (see Section III-B.2) should accompany these appendices. The forms required to complete these appendices can be downloaded at the following World Wide Web site: *http://mrmc-rad6.army.mil/documents.html.*

III-B.7.a. Regulatory Compliance Checklist/Form

This form, found in Appendix 3 of this BAA, must be completed and sent in when appendices are requested.

III-B.7.b. Certificate of Environmental Compliance

The Certificate found in Appendix 4 of this BAA, must be executed by the institution's official responsible for environmental compliance.

The Council on Environmental Quality (CEQ) regulations (40 CFR 1500-1508) that implement the National Environmental Policy Act (NEPA) (PL 91-190, as amended) require all Federal agencies to examine possible environmental consequences of their proposed and ongoing actions.

The USAMRMC examines all medical research and development projects, whether inside or outside the U.S., for their potential environmental impacts. In most cases, contractors conducting research in established laboratories that are in compliance with environmental laws and regulations, or are already covered by existing environmental documentation, will not be required to provide additional information about the environmental impact of their proposed research. Such projects will receive a "categorical exclusion" according to Army regulations (AR 200-2) that implement the CEQ regulations.

After a proposal has been selected for award, the USAMRMC will determine if a categorical exclusion is warranted. If there are any extraordinary circumstances surrounding the research (e.g., research that involves the transfer of recombinant DNA molecules into the genome of one or more human subjects, requires BSL3 or BSL4 safety levels, or uses animals captured from the wild), further information may be requested to allow a determination of the environmental impact of the proposed research to be made. You must submit this information in a timely manner in order to receive an award.

III-B.7.c. Research Involving Human Subjects and/or Human Anatomical Substances

Address all pertinent issues relating to the use of human subjects and anatomical substances in the proposed research. Include the required approvals, forms, and descriptions as outlined in Appendix 5 of this BAA.

Note that Department of Defense rules for participation of human subjects and informed consent differ from those required by other funding agencies.

III-B.7.d. Research Involving Animals

Address all pertinent issues relating to the use of animals in the proposed research. Include the required assurances, approvals, forms, and descriptions as outlined in Appendix 6 of this BAA. (Research conducted under sponsorship of the USAMRMC that generates preclinical safety data intended to support a research or marketing permit for products regulated by the Food and Drug Administration will be in conformance with the Good Laboratory Practices Regulations.)

Note that Department of Defense procedures for reviewing and approving the use of animals in research differ from those required by other funding agencies.

III-B.7.e. Safety Program Plan

Address all pertinent issues and include the required assurances, approvals, forms, and descriptions relating to safety as outlined in Appendix 7 of this BAA.

IV. GENERAL INFORMATION

IV. GENERAL INFORMATION

IV-A. Policy and Procedures

IV-A.1. USAMRMC Award

The USAMRMC implements its extramural research program predominantly through the award of grants and cooperative agreements. Proposals selected for funding are processed by the U.S. Army Medical Research Acquisition Activity (USAMRAA).

All awards are made to organizations, not individuals. A Principal Investigator must submit a proposal through, and be employed by, a CCC in order to receive support.

Collaborative research efforts between civilian research institutions and military medical treatment facilities and/or laboratories are encouraged. Information regarding proposed military/civilian collaborations should be included on page 6 (question 23) of the Proposal Cover Booklet. The lead partner shall be the non-DOD agency. Questions regarding military/civilian collaborations should be directed to USAMRAA by fax: (301)619-2937.

IV-A.2. Procurement Integrity, Conflicts of Interest, and Other Improper Business Activities

The Procurement Integrity Act, Title 41 United States Code 423, et seq., contains prohibitions against certain activities between offerors and Government officials. Any questions regarding these prohibitions should be directed to the USAMRMC legal staff at (301)619-2065. Proposed military/civilian collaborations should pay special attention to the Procurement Integrity Act.

IV-B. Proposal

IV-B.1. Disclosure of Information Outside the Government

By submission of an application, the applicant understands that disclosure of information outside the Government shall be for the sole purpose of technical evaluation. The USAMRMC will obtain a written agreement from the evaluator that information in the proposal will only be used for evaluation purposes and will not be further disclosed or utilized. Successful proposals may be subject to Freedom of Information Act (FOIA) requests. Unsuccessful proposals are protected from FOIA requests.

IV-B.2. Award Eligibility

To be eligible for award, a prospective recipient must meet certain minimum standards pertaining to institutional support, financial resources, prior record of performance, integrity, organization, experience, operational controls, facilities, and conformance with safety and environmental statutes and regulations (OMB Circular A-110).

IV-B.3. Government Obligation

PIs are cautioned that only an appointed Contracting Officer may obligate the Government to the expenditure of funds. No commitment on the part of the Government to fund preparation of a proposal or to support research should be inferred from technical discussions with a technical project officer. A PI or an organization that makes financial or other commitments for a research effort in the absence of an actual legal obligation signed by the USAMRAA Contracting Officer does so at their own risk.

IV-B.4. Information Service

Offerors may use the technical reference facilities of the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161, for the purpose of surveying existing knowledge and avoiding needless duplication of scientific and engineering efforts and the expenditure thereby represented. To the extent practical, all other sources should also be consulted for the same purpose.

IV-B.5. Proposal Submission Deadline

The submission deadline for proposals solicited in this BAA is 12 November 1997 and will be strictly enforced.

All submissions must be received at the address listed in Section IV-B.6 no later than 4:00 p.m. Eastern Standard Time on 12 November 1997. Any proposal received after the exact time specified for receipt will not be considered unless it is received before award is made, and it:

1. was sent by mail, and it is determined by the Government that late receipt was due solely to mishandling by the Government after receipt at the Government installation.

2. was sent by U.S. Postal Service Express Mail Next Day Delivery--Post Office to Addressee and postmarked no later than 5:00 p.m. on 11 November 1997.

3. was sent by other commercial overnight courier service and placed into their control no later than 5:00 p.m. on 11 November 1997.

IV-B.6. Proposal Copies/Submission Address

Thirty-one copies of the proposal, including one original, will be submitted to:

Commander
U.S. Army Medical Research and Materiel Command
ATTN: MCMR-PLF (OCRP-BAA-97)
524 Palacky Street
Fort Detrick, MD 21702-5024

Refer to Section III, "Proposal Preparation," and the appendices cited therein to ensure that all items have been addressed or completed.

If the applicant wants an acknowledgment of proposal receipt, enclose a self-addressed, stamped postcard with the proposal. The postcard should state the proposal title.

IV-B.7. Funding Instrument

The funding instrument for most awards to academic and nonprofit institutions under this BAA will be grants. Cooperative agreements may be used where appropriate. In some instances, contracts may be the award instrument. More information on the above may be obtained by request from:

Director
U.S. Army Medical Research Acquisition Activity
ATTN: MCMR-AAA
Fort Detrick, MD 21702-5014
Fax: (301)619-2937

IV-C. Research Administration

IV-C.1. Deliverables

The grant or cooperative agreement will require the timely delivery of several reports during the research effort. The Recipient and the Principal Investigator must realize that reports are

necessary for the USAMRMC to monitor progress. While a particular research project may call for some variation, the PI should plan on a requirement that consists of:

a. an ANNUAL report (for each year of research except the final year) that presents a detailed summary of scientific issues and accomplishments; and

b. a FINAL report (submitted in the last year of the grant period) that details the findings and issues of the entire project.

A copy of the manuscript or subsequent reprints of any publications resulting from the research **must** be submitted to the USAMRMC.

IV-C.2. Equipment/Property

Title to equipment or other tangible property purchased with grant or cooperative agreement funds may be vested in nonprofit institutions of higher education or with nonprofit organizations whose primary purpose is the conduct of scientific research. Normally, title will vest in the recipient if vesting will facilitate scientific research performed by the institution or organization for the Government.

Commercial organizations, including nonprofit institutions, are expected to possess the necessary facilities and equipment to conduct the proposed research. Generally, no funds will be authorized for equipment acquisition.

IV-D. Other Publications

Investigators are strongly encouraged to publish their results in scientific literature. A copy of the manuscript or subsequent reprints of any publications resulting from the research **must** be submitted to the USAMRMC.

V. APPENDICES

Appendix 1
Detailed Cost Estimate

Principal Investigator ***(last, first, middle)***

DETAILED BUDGET FOR INITIAL BUDGET PERIOD					FROM		THROUGH
PERSONNEL (APPLICANT ORGANIZATION ONLY)		TYPE APPT. (MONTHS)	ANNUAL BASE SALARY	% EFFORT ON PROJECT	DOLLAR AMOUNT REQUESTED (OMIT CENTS)		
NAME	ROLE ON PROJECT				SALARY REQUESTED	FRINGE BENEFITS	TOTALS
	Principal Investigator						
PERSONNEL DIRECT COSTS SUBTOTALS → → → → → → → → → →							$
CONSULTANT COST							
EQUIPMENT (ITEMIZE)							
SUPPLIES (ITEMIZE BY CATEGORY)							
TRAVEL							
RESEARCH-RELATED PATIENT COST							
OTHER EXPENSES (ITEMIZE BY CATEGORY)							
CONSORTIUM COSTS	DIRECT						
	INDIRECT						
SUBTOTAL OTHER DIRECT COSTS FOR INITIAL BUDGET PERIOD → → → → → → → → → → → → → →							$
TOTAL PERSONNEL & OTHER DIRECT COSTS FOR INITIAL BUDGET PERIOD							$
TOTAL INDIRECT COSTS FOR INITIAL BUDGET PERIOD							$
TOTAL COSTS FOR INITIAL BUDGET PERIOD							$

Principal Investigator ***(last, first, middle)***

BUDGET FOR ENTIRE PROPOSED PERIOD OF SUPPORT						
BUDGET CATEGORY TOTALS*		INITIAL BUDGET PERIOD (FROM FORM PAGE 1)	ADDITIONAL YEARS OF SUPPORT REQUESTED			
			2nd	3rd	4th	5th
PERSONNEL						
FRINGE BENEFITS						
CONSULTANT COST						
EQUIPMENT						
SUPPLIES						
TRAVEL						
RESEARCH-RELATED PATIENT COST						
OTHER EXPENSES						
SUBTOTAL DIRECT COST						
CONSORTIUM COST	DIRECT					
	INDIRECT					
TOTAL DIRECT COST						
TOTAL INDIRECT COST						
TOTAL DIRECT COST FOR ENTIRE PROPOSED PERIOD OF SUPPORT					$	
TOTAL INDIRECT COST FOR ENTIRE PROPOSED PERIOD OF SUPPORT					$	
TOTAL COST FOR THE ENTIRE PROPOSED PERIOD OF SUPPORT THIS AMOUNT MUST AGREE WITH THAT ENTERED ON THE COVER SHEET BOOKLET, ITEM #22					$	

*** Itemize all budget categories for additional years on *Justification* page which follows**

JUSTIFICATION: FOLLOW THE BUDGET JUSTIFICATION INSTRUCTIONS EXACTLY. USE CONTINUATION PAGES AS NEEDED.

Appendix 2
Biographical Sketches

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel listed on the budget page for the initial budget period

NAME	POSITION TITLE

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)

INSTITUTION AND LOCATION	DEGREE (IF APPLICABLE)	YEAR(S)	FIELD OF STUDY

RESEARCH AND PROFESSIONAL EXPERIENCE: Concluding with present position, list, in chronological order, previous employment, experience, and honors. Include present membership on any Federal Government public advisory committee. List, in chronological order, the titles, all authors, and complete references to all publications during the past three years and to representative earlier publications pertinent to this application. If the list of publications in the last three years exceeds two pages, select the most pertinent publications. PAGE LIMITATIONS APPLY. DO NOT EXCEED THREE PAGES FOR THE ENTIRE BIOGRAPHICAL SKETCH PER INVESTIGATOR.

RESEARCH AND PROFESSIONAL EXPERIENCE (CONTINUED). PAGE LIMITATIONS APPLY.
DO NOT EXCEED THREE PAGES FOR THE ENTIRE BIOGRAPHICAL SKETCH PER INVESTIGATOR.

RESEARCH AND PROFESSIONAL EXPERIENCE (CONTINUED). PAGE LIMITATIONS APPLY.
DO NOT EXCEED THREE PAGES FOR THE ENTIRE BIOGRAPHICAL SKETCH PER INVESTIGATOR.

Appendix 3
Regulatory Compliance Checklist/Form

This form MUST be completed and sent in when appendices are requested (on or about 1 February 1998).

Human Subjects: ***Please read Appendix 5 before completing. Mark all that apply.***

- ○ Females
- ○ Males
- ○ Minor (under 18)
- ○ Minorities
- ○ Military, Active Duty
- ○ Military, Reserve
- ○ National Guard
- ○ Foreign
- ○ Inpatient
- ○ Outpatient
- ○ Clinical Trials
- ○ Other (specify): _____

Human Anatomical Substances: ***Please read Appendix 5 before completing.***

In the proposed work, will human anatomical substances be used?

○ Yes ○ No

If yes, which anatomical substance(s) will be used (mark all that apply):

- ○ Blood
- ○ Saliva
- ○ Tissue
- ○ Established Cell Lines
- ○ Cells
- ○ Primary Cell Lines
- ○ DNA
- ○ Other (specify): _____
- ○ Urine

Can the anatomical substance(s) indicated above be traced to a specific donor?

○ Yes ○ No

CONTINUED ON REVERSE

Animal Subjects: ***Please read Appendix 6 before completing.***

In the proposed work, will animals be used?

○ Yes ○ No

In the proposed work, will animals be used by a subcontractor?

○ Yes ○ No

If yes to either of the above questions, which animal subjects will be used (mark all that apply):

○ Primates
○ Frogs
○ Rabbits
○ Hamsters
○ Horses
○ Cats
○ Chickens
○ Fish
○ Ferrets
○ Sheep
○ Dogs
○ Pigeons
○ Rodents
○ Guinea pigs
○ Goats
○ Other (specify): _____

Safety Provisions: ***Please read Appendix 7 before completing. Mark all that apply.***

○ Good Laboratory Practices (GLP)
○ Recombinant DNA
○ Investigational Drugs
○ Radioactive Materials
○ Genetic Materials
○ Biologicals/Toxins
○ Hazardous Materials
○ Other (specify): _____

Appendix 4
Certificate of Environmental Compliance

The offeror currently ____ IS ___ IS NOT (check appropriate category) in compliance with applicable national, state, and local environmental laws and regulations. (If not in compliance, attach details and evidence of approved mitigation measures.)

The offeror has examined the activities encompassed within the proposed action entitled "_____

_____"

(enter title and/or Solicitation number and Principal Investigator's name), for compliance with environmental laws and regulations. The offeror states that the conduct of the proposed action

1. WILL NOT violate any applicable national, state, or local environmental law or regulation.

2. WILL NOT have a significant impact on the environment.

The offeror agrees that if the work required under the proposed action at any time results in a significant impact on the environment or a violation of any applicable environmental law or regulation, the offeror will immediately take appropriate action, to include notifying and/or coordinating with the appropriate regulatory agencies as required by law and notifying the Contracting Officer.

_____ _____

Name of Official Responsible for Environmental Compliance

Signature

_____ _____

Title

Date

_____

Name of Organization

Appendix 5
Research Involving Human Subjects and/or Human Anatomical Substances
(includes DNA, cells, tissues, blood, etc.)

The intention of this appendix is to provide clear, concise information that will enable each Principal Investigator to prepare documentation for human use and regulatory compliance review by the U.S. Army Medical Research and Materiel Command (USAMRMC), Deputy Chief of Staff for Regulatory Compliance and Quality (RCQ), Human Use Review and Regulatory Affairs (HURRA). A synopsis of the guidance contained in the code of Federal Regulations, DOD Directives, and Army Regulations is provided at the end of this appendix (page 69). If only anatomical substances will be used, see below (Section A) for guidance. If human subjects or data about human subjects (inclusive of database studies) will be used, see pages 58-71 (Section B). **These requirements may differ from those of other funding agencies.**

Section A
Guidance for Use of Human Anatomical Substances

1. GENERAL: It is important to note clearly what type of human anatomical substances will be used, and how the substances will be used, in the research study. This section provides guidance for use of human blood, tissue, urine, saliva, cells, established cell lines, primary cell lines, DNA, and other associated substances.

2. SPECIFIC GUIDANCE:

a. Human Blood, Tissue, Urine, Saliva, DNA, etc.

1. If the blood, tissue, urine, saliva, DNA, or other anatomical substance used in the study *contains no personal identifiers and was not obtained for the purpose of this research (existing)*, the study is considered to be exempt from human use regulations. The Optional Form 310 should be completed and signed by the Chair of the local Institutional Review Board, indicating the study is exempt. It should be noted in the comments block that the study will use existing blood, tissue, urine, saliva, DNA, etc. with no personal identifiers linking the substance to the donor. This will be the sole document required for submission of the Human Use Appendix for this type of research.

2. If the blood, tissue, urine, saliva, DNA, or other anatomical substance used in the study ***does contain*** *personal identifiers or was obtained specifically for the purpose of this research*, the study is considered to be minimal risk. An informed consent document written according to instructions in Section B must be prepared (See pages 62-66). The Optional Form 310 must be completed and signed by the Chair of the local Institutional

Review Board, indicating the study is minimal risk. The consent form and completed Optional Form 310 will be the documents required for submission of the Human Use Appendix for this type of research.

b. Cells, Established Cell Lines, Primary Cell Lines, etc.

It should be clearly indicated how these anatomical substances were obtained. If the cells were purchased, it should be indicated from whom the purchase was made (or will be made). The use of these substances is considered exempt from human use regulations. The Optional Form 310 should be completed and signed by the Chair of the local Institutional Review Board, indicating the study is exempt. It should be noted in the comments block how the substances were obtained, purchased, etc. This will be the sole document required for submission of the Human Use Appendix for this type of research.

3. OPTIONAL FORM 310: A copy of an Optional Form 310 is included on page 71. This form is also available at the following World Wide Web Site: **http://mrmc-rad6.army.mil/documents.html**

4. QUESTIONS: Questions regarding the use of human anatomical substances should be directed to fax number (301)619-7803.

5. SUGGESTIONS: Suggestions for improving or clarifying this section should also be directed to fax number (301)619-7803.

Section B
Guidance for Use of Human Subjects

1. GENERAL: Each protocol submission should include a protocol, a consent form, and a completed Optional Form 310. If applicable, a copy of the advertisements, questionnaires, case report forms, IND information, and other related information should be provided with the Human Use Appendix. **All revisions to the protocol, consent form, advertisements, questionnaires, and other related study documentation must be reviewed and approved by the HURRA prior to implementation.**

2. SPECIFIC GUIDANCE:

a. Protocol Review Checklist: This checklist is designed to assist the applicant in preparing a protocol. If an item does not apply, please disregard.

- PROJECT TITLE. The consent form title must match that of the project.
- PHASE. For Food, Drug, and Cosmetic Act regulated medical products, designate as a Phase I, II, III, or IV protocol.
- PRINCIPAL INVESTIGATOR. The complete name, address, and phone number of the Principal Investigator must be listed at the top.
- LOCATION OF STUDY. List all centers, clinics, or laboratories where the study is to be carried out. The complete addresses and site investigator(s) should be listed.
- TIME REQUIRED TO COMPLETE. The month/year of expected start and completion dates must be listed.
- PLAN. Outline exactly the proposed methodology in enough detail to show a clear course of action. Technological reliability and validity of procedures should be indicated, and chronological order should be followed. Minimum guidance for the plan includes:
  - Selection of subjects
  - Number of subjects
  - Age range
  - Sex
  - Inclusion criteria/diagnostic criteria for entry/exclusion criteria (If women and/or minorities will be excluded, a justification as to why must be included.)
  - Evaluations prior to entry
  - Source of subjects
  - Subject identification (Describe code system to be used.)
  - Subject assignment

- Risks to the subject
- Precautions to be taken to minimize/eliminate risks
- Specific medical or nursing care that will be needed
- Description of project medication(s) or device(s) (If investigational, provide the IND number and sponsor.)
- Complete names and composition of all medication(s)/device(s)/placebo(s)
- Source of medication(s)/device(s)/placebo(s)
- Place where study medication(s) will be stored
- Dose range/dose schedule/administration
- Washout period (The washout or pre-drug period must be carefully noted.)
- Duration of drug or device treatment
- Accompanying medications (Those allowed/disqualified)
- Antidotes to be available
- Copy of the medication/device label
- Evaluations made during/following project

NOTE: IT IS VERY IMPORTANT TO STATE IN THE PROTOCOL WHO IS ACTUALLY GOING TO PERFORM THE FOLLOWING:

1. Specimens to be collected
2. Schedule and amounts
3. Evaluations to be made on specimens
4. Storage (Include storage locations and whether special conditions are required.)
5. Labeling and disposition
6. Clinical assessments (Include how adverse effects are to be recorded.)
7. Vital signs
8. Follow-up procedures
9. Disposition of data (Where stored and for how long? Note: Records for IND studies must be kept until two years after an NDA/license for the investigational drug is approved/issued or for two years after the IND is withdrawn.)
10. Biostatistical reviews
11. Departure from protocol for individual subjects (When allowed, who will be notified; include HURRA.)
12. Modification of protocol (Describe the procedure to be followed if the protocol is modified. Include HURRA.)
13. Statement pertaining to disposition of unused drug
14. Use of information/publications arising from study
15. Personnel to conduct project (Names, positions, and phone numbers. Include the medical monitor. Attach a short biographical sketch. Include a resume of education, research training, and list of publications for each person.)

THE FOLLOWING SIGNATURES ARE REQUIRED FOR ALL PROTOCOLS:

1. Signature of Principal Investigator, date, with the accompanying statement--
   "I have read the foregoing protocol and agree to conduct the study as outlined herein."
2. Signature of appropriate approving official and date.

ADDITIONAL CONSIDERATIONS:

✔ A **medical monitor** must be assigned to human subjects research involving greater than minimal risk. The name and the curriculum vitae of the medical monitor must be provided. This individual should be a qualified physician, other than the Principal Investigator, who is not associated with the protocol, is able to provide medical care to research subjects for conditions that may arise during the conduct of the study, and will monitor the subjects during the conduct of the study. (For multi-center studies involving greater than minimal risk, a medical monitor must be assigned to each site.)

✔ If **HIV screening** is to be done, the consent form must further state that results will be provided to the subject and that medical referrals and follow-up will be available to subjects found to be HIV positive.

✔ A **science review** should be documented.

✔ The **method of determining pregnancy** status in women of childbearing potential must be specified, if applicable. Also, the time that will elapse between the pregnancy test and exposure to test procedures or medical products must be documented. Serum pregnancy tests are required for all clinical medical product studies. For IND studies, serum pregnancy testing is required within 48 hours prior to the start of the study.

✔ For **IND studies** that include females of childbearing age, any risks to the developing fetus should be outlined in the consent form.

✔ A letter from the Radiation Protection Officer at the study site approving the use of **radio-labeled products** must be included, if applicable.

✔ If there will be **collaborators** in the study, all letters of collaboration must be included.

✔ If the project is conducted in a **foreign country**, a letter of approval from the Ministry/ Minister of Health or equivalent approving official from the foreign country must be included.

✔ If a foreign study, the **foreign version of the consent form** must be included. In addition, the following statement and information is required on the English-language version of the translated consent form: "I certify that this is an accurate and true translation." The translator's signature, name, address, phone number, and fax number should also be included.

✔ If the study involves a **contagious disease**, any other studies going on in the isolation ward at the same time should be discouraged.

☛10 USC 980. An intent to benefit subjects who cannot give their own consent (minors, unconscious) must be shown. This intent must be clearly stated in the protocol and consent form.

✔ If **military subjects** are involved in a study and blood is to be drawn, they may be paid only for their blood donation and only up to $50.00 per draw unless the study participation will be conducted during off-duty hours. This must be clearly stipulated. If payment will be provided to subjects in the study, it should be clearly stated who (military vs. civilian, if applicable) will be paid what amount, and when and how that payment will be made.

✔ All **payments to the subject** for their participation in the research must be made clear in both the protocol and the consent form. The pro-rated amount should subjects be withdrawn during the study must be indicated. It should also be indicated how and when payment will be made.

✔ The collection of **minority group data** is suggested for inclusion in the study, e.g., American Indian or Alaska Native, Asian or Pacific Islander, Black (not Hispanic Origin), Hispanic, White (not Hispanic Origin), for future data analysis, in accordance with Public Law 103-160 and the Department of Health and Human Services and the Food and Drug Administration guidelines.

b. Elements of Informed Consent: Informed consent is more than a document, it is a continual process. In preparing your informed consent document, please include all of the elements below that apply. 32 CFR 219 and 45 CFR 46 provide additional guidance for elements that are not listed below. If a multi-center study is proposed, the investigator must submit one consent form from each site for review and approval. That consent form must be used at each study site. Consent forms should be written in 8th grade reading level language. Use short, clear, simple, declarative sentences. Use non-medical language that is easily understood by the subject. *Elements listed in italics must be included in all consent forms.*

1. *Title of the study and complete address.*

2. ***Name** of the Principal Investigator, and associate(s) if applicable, conducting the study.*

3. *A statement that the study **involves research.***

4. ***Purpose of the research.***

5. Provide a **translation** of the consent form for subjects being enrolled in the study who do not comprehend English. The following statement and information is required on the English language version of the translated consent form: **"I certify that this is an accurate and true translation."** (The translator's signature, name, address, phone number, and fax number should also be included.)

6. *Include a statement clearly indicating the expected **duration** of the subject's participation (the number of hours, days, etc.).*

7. *Describe all **procedures** to be followed and identify any procedures that are experimental. These procedures should agree with the protocol.*

8. *Briefly explain the **study design** relative to what will be done to the subject.*

9. If a **placebo** is used, its contents should be described, in lay terms.

10. Specify what is **required of the subject** (hospital visits, blood donation, etc.).

11. If **blood** is to be drawn (including serum pregnancy tests), the amount(s) to be drawn should be expressed in lay terms (for example, 2 teaspoons).

12. The subject should be advised that the IND/IDE is being used in this study. Clearly indicate that its use is investigational for the purposes of this research.

13. Include **risks or discomforts** to the subject. (This includes pregnancy and possible risks to the fetus.)

14. Will **pregnant women** be excluded and/or withdrawn from the study?

15. ***Risks** should include risks unique to the study; estimate their severity and likelihood; and/or compare these risks with risks the subject might encounter in the course of his/her daily activities. If similar research has been conducted in the past, describe the incidence of adverse effects or injuries occurring in previous subjects.*

16. ***Benefits*** *of participation in the study should be listed.*

17. ***Alternative procedures*** *should be disclosed.*

18. **Payment** for study participation should be disclosed (see page 62).

19. ***Confidentiality*** *of records identifying the subject must be described.*

20. *The following statement is MANDATORY for studies utilizing* ***civilians:*** *"Representatives from the U.S. Army Medical Research and Materiel Command (and, where applicable, the Food and Drug Administration, and the U.S. Army Medical Department Center and School) may inspect the records of the research in their duty to protect human subjects in research."*

21. *The following statement is MANDATORY for studies utilizing* ***military personnel****: "All data and medical information obtained about you as an individual will be considered privileged and held in confidence; you will not be identified in any presentation of the results. Complete confidentiality cannot be promised, particularly to subjects who are military personnel, because information bearing on your health may be required to be reported to appropriate medical or Command authorities. Representatives of the U.S. Army Medical Research and Materiel Command [and the Food and Drug Administration] may inspect the records of the research."*

22. ***Medical care*** *clause: "The Department of Defense is funding this research project. Should you be injured as a direct result of participating in this research project, you will be provided medical care, at no cost to you, for that injury. You will not receive any injury compensation, only medical care. You should also understand that this is not a waiver or release of your legal rights. You should discuss this issue thoroughly with the Principal Investigator before you enroll in this study."*

23. ***Points of Contact:***
    a. *Answers to questions* ***about the research*** *study and in the event of a research-related* ***injury*** *to the subject should be provided by the investigator.*
    b. *Answers to questions about research subjects'* ***rights*** *should be provided by the local IRB or legal office.*

24. *A statement should be included that participation is* ***voluntary****, that refusal to participate will involve* ***no penalty or loss of benefits*** *to which the subject is otherwise entitled, and that the subject may* ***discontinue participation*** *at any time without penalty or loss of benefits to which the subject is otherwise entitled.*

25. *The **Signature Block** should include the date, signature, typed/printed name, and permanent address of subject and signature and typed/printed name of witness. If using Department of the Army active duty soldiers, contact Human Use Review and Regulatory Affairs for the appropriate Department of the Army form.*

26. *The subject and witness should **initial** and date all but the last page.*

27. If **blood, tissue, or body product samples** will be drawn in the study for possible future use in another protocol, the following statement **must be included**: "I understand that there is a possibility that the [blood, tissue, body fluids--specify what type] that I am providing under this study may also be used in other research studies and could potentially have some commercial applicability."

    If, indeed, it is anticipated that the samples donated by the volunteer will be used in other studies, an **additional donation form** must be prepared for signature by the volunteer that states "I voluntarily and freely donate any and all [blood, tissue, body fluids--specify what type] to the [name of the institution] and the U.S. Government and hereby relinquish all right, title, and interest to said items." The title of the study should be inserted at the top of the form.

28. *It should be clearly indicated whether the subject will be asked to pay any **Costs** associated with this study. If so, list what tests, etc. for which the subject will be responsible for paying. Also, if the cost of the study drug will be charged to the subject, it should be indicated.*

29. If **pregnant women** will be excluded, the following statement (or equivalent) must be included: "In order to participate in this study, you should have avoided becoming pregnant from the first day of your most recent menses. You should avoid becoming pregnant for at least [time period in days, weeks, or months] after [study end date, receipt of drug, etc.]. Pregnancy within [time period in days, weeks, or months] after [study end date, receipt of drug, etc.] may create a potential risk to the unborn baby. To avoid becoming pregnant, you should either abstain from sexual relations or practice a method of birth control. The only ways to completely avoid risk to the unborn baby are (1) to not become pregnant or (2) do not enter this study. Adverse effects might affect a developing fetus. Further, they might result in unknown risks of deformities or death to the unborn baby. A negative pregnancy test does not absolutely prove that you are not pregnant. Regardless of the results of the pregnancy test that you were administered as part of the screening for this study, you should not participate if you think there is a possibility that you might be pregnant." Also, a statement should be included which directs the volunteer to notify the Principal Investigator if she becomes pregnant. Women should be notified if they will be withdrawn from the study should they become pregnant.

30. For all studies involving more than minimal risk, the following statement must be

included in the consent form: "By enrolling in this study, you should understand that the United States Army Medical Research and Materiel Command (USAMRMC) will collect certain information about you, including your name, address, social security number, study name, and dates. The purpose is, first, to readily answer an individual's questions about their participation in research sponsored by the USAMRMC; and second, to ensure that the USAMRMC can exercise its obligation to ensure research volunteers are adequately warned of risks and to provide new information as it becomes available. The information will be retained in this database for a minimum of 75 years."

31. Each page should be dated using the date that the document was edited (ex: Ver 1.0/ March 1, 1997).

c. Optional Form 310 (OF 310): Each institution must have an assurance of compliance with human use regulations. If an institution has a Multiple Project Assurance (MPA) on file with the Department of Health and Human Services (DHHS) Office for Protection of Research Risks, that assurance number should be documented on the OF 310 (page 71), Protection of Human Subjects Assurance/Certification/Declaration which replaced DHHS Form 596. If the institution does not have an MPA, an assurance application should be completed and sent with the protocol. A Department of Defense Assurance will be issued for the research project. There are three different assurance applications: (1) for institutions that have an IRB but no MPA; (2) for overseas institutions; and (3) for institutions that must use another institution's IRB. These assurance applications and the OF 310 can be downloaded from the World Wide Web Site: **http://mrmc-rad6.army.mil/documents.html**

The OF 310 should be completed and signed by the Chairperson of the IRB. If another agent signs this document, verification of authority should be included in the remarks column (individual's signature authority). The **OF 310 must** include the level of risk that the project poses to the subject. These risk levels are: exempt, minimal risk, and greater than minimal risk. The HURRA reserves the right to determine whether the risk level is in compliance with all applicable regulations. If the study has been determined to be exempt, the investigator must clearly state the information requested in paragraph 3. ***Risk Level Determination (exempt, minimal, or greater than minimal risk) should be indicated in the comments section.***

d. Advertisement: If subjects will be recruited through an advertisement, newspaper article, or similar process, a copy of the IRB-approved advertisement must be provided. IRB review of advertisements is necessary to ensure the information is not misleading to the subjects participating in IND studies. The FDA has established guidelines on

advertisements for subjects. General guidance includes: name and address of Principal Investigator, summary of research purpose, brief eligibility criteria, truthful list of benefits, and the person to contact for further information.

e. Questionnaires, Case Report Forms, Study Instruments, etc.: Include copies of all other applicable study-related documentation: questionnaires, case report forms, data sheets, etc.

3. ANSWERS TO FREQUENTLY ASKED QUESTIONS:

a. ***What is the Medical Care Provision?*** - Civilians must be provided medical care, free of charge, if they are injured as a direct result of their participation while enrolled in research funded by the USAMRMC. The proposed recipient must agree to provide this medical care. This is a requirement for all protocols funded by the USAMRMC, regardless of risk level. The consent form guidance (detailed on pages 62-66) provides a recommended statement to inform research subjects of this requirement. If the proposed recipient wishes to use similar wording, that wording will be reviewed upon submission. However, the proposed recipient's statement must concur with the USAMRMC policy of providing medical care, free of charge. Research will not be approved if the proposed contractor does not have a mechanism in place to provide this care. The mechanism used should be clearly stated in the consent form. Four possible mechanisms are as follows:

1. The proposed recipient may absorb such costs into the institution's operating budget.

2. The proposed recipient's liability insurance, if available, may be sufficient to cover any medical care costs. The proposed recipient's business office and/or legal advisor must ensure that there is adequate coverage under this liability insurance.

3. The proposed recipient could negotiate an additional amount of funds, if available, into the award that will cover such medical care cost (such as liability insurance). This can only be negotiated with the U.S. Army Medical Research Acquisition Activity (the contracting organization).

4. Third-party payers may be billed for such medical expenses. If this method is used, the subject must be informed, in the consent document, that his/her insurance company will be billed. The proposed recipient must also state, and agree to, an assurance that any payments not covered by the third-party insurance will be paid by the proposed recipient.

b. ***What is the Volunteer Registry Database?*** - A confidential database has been created to enable the USAMRMC to fulfill its "duty to warn." The information contained in the database is cited on USAMRMC Form 60-R (Volunteer Registry Data Sheet). This data sheet will be provided to the Principal Investigator, upon approval of the use of human subjects. This form may be copied by the Principal Investigator. Data collection is required for all studies considered greater than minimal risk. All information obtained in this database is protected under The Privacy Act of 1974. Information about the study itself could be released to a requestor. However, personal identifying information (name, address, date of birth, social security number, etc.) may not, and will not, be released unless the subject (or legal guardian) provides written approval of such disclosure. Each subject on whom data are collected, upon written request to HURRA, RCQ, USAMRMC, may have access to their record, and only their record, contained in the database. The data sheets must be completed for each subject enrolled in the study. Upon completion of the phase, study, or project, these sheets should be forwarded to HURRA, RCQ, USAMRMC.

c. ***What is Risk Level Determination?*** - HURRA has the obligation to ensure that the appropriate level of risk has been assigned to each project. In some cases, HURRA will make a different determination of risk from that of the proposed recipient's local Institutional Review Board (IRB). In those instances, HURRA will notify the Principal Investigator. In the case of exempt studies, the investigator must explain in the proposal what samples will be used, how and when they were collected, and what personal identifying information will be provided to the investigator. Database studies involving the use of personal identifying information are considered minimal risk, and a consent form must be provided.

Minimal risk studies involve tests and procedures that would mirror what the subject would normally encounter during a routine test or medical examination.

Greater than minimal risk studies involve all other procedures not considered routine. All investigational new drug studies are greater than minimal risk.

d. ***What are the Guidelines of Waiver of Informed Consent?*** - Generally, the HURRA will not grant a waiver of informed consent for minimal risk and greater than minimal risk studies involving human beings as experimental subjects. However, minimal risk studies involving the use of **data** might be eligible for waiver, upon request by the investigator.

e. ***What is the HURRA Address?*** - Should it be inconvenient to fax questions, comments, or suggestions, please feel free to write us at:

Commander
U.S. Army Medical Research and Materiel Command
Attention: MCMR-RCQ-HR
504 Scott Street
Fort Detrick, MD 21702-5012

f. ***What is a Medical Monitor?*** - A medical monitor must be assigned to research studies with human subjects involving greater than minimal risk. The name and curriculum vitae of the medical monitor must be provided. This individual should be a qualified physician, other than the Principal Investigator, who is not associated with the protocol, is able to provide medical care to research subjects for conditions that may arise during the conduct of the study, and will monitor the subjects during the conduct of the study.

4. POLICIES AND PROCEDURES:

Policies and procedures governing the use of human subjects and human anatomical substances are contained in the following documents:

- Code of Federal Regulation, Title 21 Part 50 (21 CFR 50)
- Code of Federal Regulation, Title 21 Part 56 (21 CFR 56)
- Code of Federal Regulation, Title 21 Part 312 (21 CFR 312) (when using investigational drugs/vaccines)
- Code of Federal Regulation, Title 21 Part 812 (21 CFR 812) (when using investigational devices)
- Code of Federal Regulation, Title 32 Part 219 (32 CFR 219)
- Code of Federal Regulation, Title 45 Part 46 (45 CFR 46), Subparts B, C, and D
- 10 United States Code, Section 980 (10 USC 980)
- Federal Acquisition Regulation 52.228-7 (FAR 52.228-7) (liability to third-party persons)
- Federal Acquisition Regulations 52.224-1 and 52.224-2 (privacy act information)

⇑Copies of the above can be obtained from:

U.S. Government Printing Office
North Capital & G Street, NW
Washington, DC 20401
Phone: (202)512-1800

- Department of Defense Directive 3216.2 (when using organs or tissues obtained at autopsy)
- Department of Defense Directive 6465.2
- Army Regulation 40-7 (when using investigational drugs/vaccines or schedule 1 controlled substances)
- Army Regulation 70-25

⇑Copies of these documents can be obtained from:

National Technical Information Service
5285 Port Royal Road
Springfield, VA 22161
Phone: (703)487-4650 or 4684

(insert Optional Form 310 here)

Appendix 6
Research Involving Animals

If using animals, please complete this entire appendix. If your subcontractor is using animals, please see item #9 below.

Department of Defense definition of **animal: Any live nonhuman vertebrate.**

Department of Defense Directive 3216.1, dated April 17, 1995, provides policy and requirements for the use of animals in DOD-funded research. **These requirements may differ from those of other funding agencies.** Each of the items listed below **must be** addressed in a proposal appendix entitled "Research Involving Animals." Questions concerning animal use should be directed to:

Commander
U.S. Army Medical Research and Materiel Command
ATTN: MCMR-RCQ-AR
504 Scott Street
Fort Detrick, MD 21702-5012
Phone: (301)619-2144
Fax: (301)619-7803

1. **Literature Searches:**

   Alternatives. Identify the services (computer databases, literature searches, etc.) used to obtain information on alternatives to painful procedures. This includes alleviated pain. (The USAMRMC reserves the right to request evidence that an alternatives search was performed.)

   Duplication. Identify the databases searched to ensure that unnecessary duplication of previous experiments does not occur. (The USAMRMC reserves the right to request evidence that a duplication search was performed.)

2. **Rationale/Justification for Using Animals:** Provide a statement of the rationale/ justification for using animals. Were alternatives to animal use considered; i.e., computer modeling, cell cultures, etc.? **It is USAMRMC policy that alternatives to the use of animals be thoroughly investigated prior to submission of any proposal involving animals.**

3. **Species Identification and Rationale/Justification:** Identify the species of animals to be used and the rationale/justification for their use. Why was this particular animal model(s) chosen? Is there a unique quality or usefulness about this species that warrants its selection for use in the proposed research?

4. **Number of Animals Required and Rationale/Justification:** Provide the number of each species of animals to be used by experimental design and a scientific/mathematical rationale/ justification for how it was determined to be the minimum number required to obtain valid results.

5. **Animal Research:** Provide a complete description of the proposed use of the animals by experimental design. Include surgical procedures; biosamples (frequency, volume, harvest site, and method of tissue collection); and adjuvants and other injections (agent, dosage, route, and anatomical site of administration).

6. **Anesthesia/Analgesia/Tranquilization:** Describe what anesthetics, tranquilizers, and analgesics will be used by agent, dosage, route, and anatomical site of administration. If none are to be used, provide an explanation.

7. **Study Endpoint:** What is the projected endpoint or termination of the study for the animals?

8. **Euthanasia or Final Disposition:** Describe the method of euthanasia by agent, dosage, route, and anatomical site of administration. If animals are not euthanized, state final disposition of the animals.

9. **IACUC Approval:** Provide evidence of protocol approval from the Institutional Animal Care and Use Committee(s) (IACUC) where animal research will be performed including any subcontracting facility. If it was not possible to have the protocol reviewed by the Committee prior to submission of the proposal, then so state. Evidence of committee review can follow proposal submission, but must be provided prior to award. **RESEARCH WILL NOT BE FUNDED WITHOUT EVIDENCE OF APPROVAL FROM THE IACUC(s).**

10. **USDA Inspection Report:** Include a copy of the most recent U.S. Department of Agriculture Inspection Report (APHIS Form 7008, Inspection of Animal Facilities, Sites or Premises) for the facility(s) where the animal research will be performed.

11. **Qualifications:** Provide information on the qualifications and training of personnel performing the animal procedures. It must specifically address the training and experience these personnel possess in using and manipulating the species of animals to be used in the proposal.

12. **Accreditation:** <u>One</u> of the following must be provided for each facility where the animal research will be conducted:

    - Evidence that the facility is accredited by the Association for Assessment and Accreditation of Laboratory Animal Care International (AAALAC-I).

- A copy of the Institutional Letter of Assurance of Compliance with the “Public Health Service Policy on Humane Care and Use of Laboratory Animals,” revised September 1986.

- A statement signed by the Institutional Official that the care and use of animals will be done according to the National Research Council 1996 "Guide for the Care and Use of Laboratory Animals" and applicable Federal regulations.

13. **Principal Investigator Signed Assurances:** The Principal Investigator must provide the following signed assurances:

    - I assure that discomfort and injury to animals will be limited to that which is unavoidable in the conduct of scientifically valuable research and that analgesic, anesthetic, and tranquilizing drugs will be used where indicated and appropriate to minimize discomfort and pain to animals.

    - I assure that the animals authorized for use in this protocol will be used only in the activities, manner, and quantities described herein, unless a deviation is specifically approved by my IACUC and the USAMRMC Animal Use Review Division.

    - I accept full responsibility for the proper care and use of the animals during the conduct of research outlined in the proposal.

    - I verify that I have made a reasonably good faith effort to ensure that this protocol is not an unnecessary duplication of previous experiments.

    - I verify that the personnel performing the animal procedures/manipulations described in this protocol are technically competent in those procedures and have received training on the use of animals in research as required by the Animal Welfare Act of 1985.

    - I assure that I have consulted with an individual who is qualified to evaluate the statistical design or strategy of this proposal and that the minimum number of animals needed for scientific validity are used.

NOTE: For proposals that require the use of nonhuman primates, companion animals, marine mammals, or protocols deemed sensitive by the USAMRMC, a site visit shall be conducted as necessary by the USAMRMC Animal Use Review Officer or designees.

Appendix 7
Safety Program Plan

Each of the items below must be addressed in a proposal appendix entitled "Safety Program Plan" and must be prepared specifically for this proposal. Each section should be operation/research specific and addressed in order. Those items that do not apply to the proposed research will be labeled as "not applicable" or "N/A." Institutional safety manuals may be referenced; however, do not send copies of safety manuals.

1. The recipient shall submit the following paragraph as affirmation that a safety program is in place and in accordance with all applicable regulations.

   (Recipient name) affirms that there is an existing safety program that is in accordance with appropriate Federal, State, and local regulations, as required by the Occupational Safety and Health Act; that hazards have been identified, eliminated, and/or controlled; and that research may be performed safely under the laboratory conditions. (Recipient name) shall be held responsible and liable for inaccuracies of the information provided, failure to implement an effective safety and occupational health program, and/or adverse conditions that may result from the failure of the recipient to identify hazard information.

2. There shall be a description of the safety procedures relating to the research operations. These should include but are not limited to the following: description of safety procedures for performing the protocol; description of any special skills, training, and standing operating procedures to assure safe research and operations (to include emergency procedures); description of medical surveillance and support; and description of security controls necessary to ensure accountability.

3. There shall be a description of the safety programs (and corresponding training) in place to include but not be limited to Hazard Communications, Chemical Hygiene, and/or Bloodborne Pathogens.

4. There shall be a description of the facility where the research will take place. This should include a description of any ventilation system employed, fire protection equipment in place, and emergency equipment available.

5. There shall be a written hazard analysis and/or tests used to identify hazards. There shall be a description of each hazard identified, a hazard analysis based on maximum credible event, and a recommendation to minimize or eliminate hazard(s).

6. There shall be a written hazard analysis of potential health hazards posed as a result of the research to be performed. These should include infectious materials, bloodborne pathogens, toxic substances, and/or ionizing and non-ionizing radiation.

7. There shall be an identification of hazardous and environmentally unacceptable materials used in the research, use of possible alternative materials, and recommended actions to eliminate or reduce the use of hazardous materials. Address any exposure concerns to personnel or the public during research and/or operations (to include transportation, packing, and shipping) or resulting from laboratory research. Special disposal procedures should be considered.

8. If radioactive materials are used, the materials and the disposal method should be identified. A copy of the NRC-approved license shall be submitted (not a copy of the organization's sub-license). If no such material is to be used, it should be so stated.

9. Any research involving recombinant DNA must meet or exceed NIH Guidelines for Research Involving Recombinant DNA Molecules, latest edition. Included should be a discussion of these requirements. A copy of the organization's institutional Biosafety Committee approval or exemption of the research shall be submitted.

10. Any other safety data that pertain to the research that may clarify the program shall be submitted.

Appendix 8
Sample Statements of Work

CEPTOR, R.E.

Statement of Work

Development of Peptide Inhibitors of the "Cancer" Receptor

Task 1. To identify the minimal region of the CR polypeptide able to inhibit intact CR when co-expressed in cultured cells (months 1-18)

- develop a series of plasmids for expressing the CR open reading frame (months 1-7)
- perform assays to ascertain which fragments of CR block DNA-binding (months 7-18)
- confirm that fragments of the CR open reading frame that block DNA-binding activity also inhibit CR function in vivo (months 18-24)

Task 2. To identify short peptides modeled after the receptor that act as inhibitors of DNA-binding and subunit association (months 18-36)

- obtain synthetic CR peptides (months 18-21)
- test the effect of synthetic peptides on the DNA-binding activity of CR (months 20-24)
- characterize the inhibitory potency of active peptides and attempt to optimize the effect by testing additional overlapping peptides (months 21-36)
- perform feasibility experiments to assess the ability of selected peptides to inhibit CR function in cultured cells (months 20-36)

Statement of Work

Follow-up Care for Men and Women with Lung Cancer

Task 1. Develop Plan for follow-up patient interviews, Months 1-3:

a. The tracking system shell from the previous lung cancer project will be modified to track patient recruitment and contact process.
b. The follow-up patient interview will be pre-screened with lung cancer patients from our hospital who are not enrolled in our study and modifications will be incorporated.
c. The environmental process interview (EPI) used for the baseline interview will be adapted for the follow-up interview.
d. Institutional Review Board approval will be obtained from all hospital sites.
e. The patient interviewer will be trained in medical terminology, measures of the interview, and use of the modified EPI system.

Task 2. Preparation for Medical Record Abstractions, Months 3-9:

a. The Medical Record Abstract form will be finalized and the investigator trained to perform patient data reviews using the instrument.
b. The Medical Record Abstract form will be revised for direct computer data entry.

Task 3. Subject Recruitment and Data collection, Months 9-20:

a. Patients enrolled in our previous study will be recruited for the proposed follow-up study.
b. Interviews subsequent to the first follow-up will be modified as necessary to reflect issues relevant to patients beyond the period of adjuvant therapy.
c. Surveys will be sent to and data collected from enrolled patients every six months.

Task 4. Abstraction of Medical Records, Months 12-24:

a. Medical record abstractions will be performed for surviving enrolled patients annually.
b. Data entry and quality control measures will be on-going.
c. Follow-up interviews will be conducted once annually with surviving enrolled patients over the 4-year study period.

Task 5. Interim Analyses, Months 24-44:

a. Interim statistical analyses of data obtained from interviews and medical record abstractions will be performed periodically.
b. Annual reports will be written.

Task 6. Final analyses and report writing, Months 44-48**:**

a. Final analyses of data from interviews and medical record abstractions will be performed.
b. A final report and initial manuscripts will be prepared.

SOUNDWAVE, John R.

Statement of Work

Ultrasound Imaging

Task 1. Modification of ultrasound imaging gantry, Months 1-12:

a. Modify imaging gantry to permit measurements of the optics.
b. Perform measurements using a multi-modal scanning configuration.
c. Design of final optics.

Task 2. Extensive evaluation of ultrasound imaging gantry with the final optics, Months 13-36:

a. Repeat measurements using the final optics.
b. Measure the contrast improvement provided by the new detector configuration relative to conventional detector configuration.
c. Conduct specimen experiments to evaluate the increase in resolution provided by the magnification.
d. Investigate the extent of artifacts in fixed and scanning modes.
e. Participate in design of a clinical evaluation study comparing modified ultrasound mammography with conventional mammography.